

## **REMARKS**

In the Office Action of April 21, 2008, claim 10 was rejected under 35 U.S.C. 101 because claim 10 allegedly fails to fall within a statutory category of invention. In addition, claims 1, 7 and 11 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent App. Pub. No. 2004/0208157 A1 (“Sander et al.”). Furthermore, claims 2-5 and 8-9 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Sander et al. in view of Vankka (“A GSM/EDGE/WCDMA Modulator With On-Chip D/A Converter for Base Stations”). Lastly, claim 6 was rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Sander et al. in view of U.S. Patent App. Pub. No. 2002/0168026 A1 (“Khoini-Poorfard”).

In response to the Section 101 rejection of claim 10, Applicants have amended claim 10 to overcome the rejection. As amended, claim 10 is directed to a computer-readable medium. Thus, Applicants respectfully request that the Section 101 rejection of claim 10 be withdrawn.

In response to the Section 103 rejections of claims 1-9 and 11, Applicants have canceled claims 3-5 and 9, and have amended the independent claims 1, 7 and 10 to more clearly distinguish the claimed invention from the cited reference of Sander et al. As amended, Applicants respectfully assert that the independent claims 1, 7 and 10 are not obvious in view of Sander et al., as explained below. In view of the claim amendments and the following remarks, Applicants respectfully request the allowance of pending claims 1, 2, 6-8, 10 and 11.

### **A. Patentability of Amended Independent Claims 1, 7 and 10**

The original independent claim 1 was rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Sander et al. In response, the independent claim 1 has been amended to include a similar subject matter as the subject matter of the dependent claim 2. However, the dependent claim 2 was rejected under 35

U.S.C. 103(a) as allegedly being unpatentable over Sander et al. in view of Vankka. Thus, Applicants will address the rejection of claim 2 for the amended independent claim 1. As explained below, the amended independent claim 1 is not obvious in view of Sander et al. and Vankka. As such, Applicants respectfully request that the amended independent claim 1 be allowed.

As amended, the amended independent claim 1 recites “*wherein the means for introducing the dip in the envelope of the digital I/Q signal in the guard interval between the adjacent time-slots of the plurality of time-slots comprises a digital multiplier for multiplying at least one of the I signal and the Q signal of the I/Q signal with a dip-shaped waveform,*” which is not disclosed in the cited references of Sander et al. and Vankka. Thus, the amended independent claim 1 is not obvious in view of Sander et al. and Vankka.

The Office Action on page 4 correctly states that “Sander does not explicitly teach a digital multiplier for multiplying the I signal and the Q signal of the I/Q signal with a dip-shaped waveform.” The Office Action then alleges that “Vankka teaches a digital multiplier for multiplying the I signal and the Q signal of the I/Q signal with a dip-shaped waveform (fig. 14.4.1: elements ‘Ramp Generator and power level controller’ and the multiplier in the digital domain).” Applicants respectfully disagree.

The cited reference of Vankka discloses a GSM/EDGE/WCDMA modulator chip that includes a multiplier that is connected to a Ramp Generator and Power Level Controller. However, the Ramp Generator and Power Level Controller is not described in Vankka as providing “*a dip-shaped waveform*” to the multiplier. Thus, the cited reference of Vankka fails to disclose “*a digital multiplier for multiplying the I signal and the Q signal of the I/Q signal with a dip-shaped waveform,*” as recited in the amended independent claim 1. Consequently, the amended independent claim 1 is not obvious in view of Sander et al. and Vankka. As such, Applicants respectfully request that the amended independent claim 1 be allowed.

The above remarks are also applicable to the amended independent claims 7 and 10, which recite limitations similar to the amended independent claim 1. Therefore, Applicants respectfully assert that the amended independent claims 7 and 10 are also not obvious in view of Sander et al. and Vankka. As such, Applicants respectfully request that the amended independent claims 7 and 10 be allowed as well.

## II. Patentability of Dependent Claims 2, 6, 8 and 11

Each of the dependent claims 2, 6, 8 and 11 depends on one of the amended independent claims 1 and 7. As such, these dependent claims include all the limitations of their respective base claims. Therefore, Applicants submit that these dependent claims are allowable for the same reasons as their respective base claims. Furthermore, these dependent claims may be allowable for additional reasons.

As an example, the dependent claim 2 recites “*another digital multiplier, the digital multiplier being used to multiply the I signal with the dip-shaped waveform, the another digital multiplier being used to multiply the Q signal with the dip-shaped waveform,*” which is not disclosed in the cited references of Sander et al. and Vankka. Thus, the dependent claim 2 is not obvious in view of Sander et al. and Vankka.

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,

Bode et al.

Date: July 21, 2008

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